8-3-1970

Yellow Bay research teams study aquatic pollution

University of Montana--Missoula. Office of University Relations

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YELLOW BAY RESEARCH TEAMS
STUDY AQUATIC POLLUTION

MISSOULA--

Dr. Arden R. Gaufin, assistant director of the University of Montana Biological Station at Yellow Bay on Flathead Lake, and his assistants are keeping vigil over the effects of pollution on Flathead and Seeley Lakes. Dr. Gaufin and several asisstants are studying the productivity of Polson Bay on Flathead Lake, an area selected for study because it is relatively heavily populated. Dr. Gaufin said the study is concerned with the bacteriological quality of the water in the bay and the chemical factors determining the growth and presence of organisms in the water.

The research team of Dr. Gaufin, professor of zoology at the University of Utah, Salt Lake City, and graduate student Roy Saltero, Billings, and Roger Haick, Chicago, Ill., chemically analyze water samples, determining and classifying types of flora and fauna.

A second aquatic research project, essentially the same as the Polson Bay project, is being carried on at Seeley Lake.

Last summer the results of tests of Seeley water found high bacteriological counts, Dr. Gaufin said. The U.S. Forest Service gave the University funds to maintain the Seeley Lake project.

Joseph Cladouhos, a UM graduate student from Great Falls, and William Noice, a science teacher from Hudson, Ohio, are working on the Seeley Lake project with Dr. Gaufin.

For eight years Dr. Gaufin has been studying the ecology of stoneflies--aquatic insects known to trout fishermen as "salmon flies." Research is aimed at the preservation of trout and other fresh-water fish.

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"To support fish, the water in lakes and streams must support aquatic insects such as stoneflies, which trout feed on," Dr. Gaufin said. "Since aquatic insects are threatened by changes in the quality of water, unfavorable conditions, even for a few hours, can eliminate a population or species."

Dr. Gaufin and his assistants, Paul Milam, principal of Bigfork High School, and Stephen Hern, a graduate student from the University of Utah who lives in Bigfork, are studying the water quality requirements of all aquatic insects. They are trying to determine the effects of temperature change and dissolved oxygen on the insects.

In 1968, when he was in Missoula as a UM visiting professor of zoology, Dr. Gaufin received a three-year grant of $72,000 from the Federal Water Pollution Control Administration of the U.S. Department of the Interior.

During 1967 Dr. Gaufin was a member of the Committee on Water Quality Criteria appointed by the Secretary of the Interior. His research on the environmental requirements of aquatic insects is part of a national effort to eliminate unknowns in pollution control. He expects to publish a scientific bulletin on stoneflies in the intermountain region next year.

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